

Claims

[c1] WHAT IS CLAIMED IS:

1. A sealing ring comprising:

an annular disk comprising at least one fastening part secured on a first machine part and at least one sealing part that, when the sealing ring is mounted, sealingly rests against a second machine part;
wherein the annular disk is fastened without intermediate positioning of a supporting body on the first machine part.

[c2] 2. The sealing ring according to claim 1 forming a rotary shaft seal, a piston seal ring, or a rod seal.

[c3] 3. The sealing ring according to claim 1, wherein one of the first and second machine parts is stationary and the other one of the first and second machine parts is moveable.

[c4] 4. The sealing ring according to claim 1, further comprising a first bonding layer attached to the annular disk, wherein the annular disk is connected with the first bonding layer to the first machine part.

- [c5] 5. The sealing ring according to claim 4, wherein the first bonding layer is an adhesive layer.
- [c6] 6. The sealing ring according to claim 4, wherein the first bonding layer is an adhesive film.
- [c7] 7. The sealing ring according to claim 4, wherein the first bonding layer is annular.
- [c8] 8. The sealing ring according to claim 4, wherein the at least one fastening part is an outer annular section of the annular disk.
- [c9] 9. The sealing ring according to claim 8, wherein the at least one sealing part is a radial inner annular section of the annular disk.
- [c10] 10. The sealing ring according to claim 4, wherein the bonding layer extends from a radial outer edge of the at least one fastening part up to half a radial width of the annular disk.
- [c11] 11. The sealing ring according to claim 4, further comprising a protective part for protecting the first bonding layer.
- [c12] 12. The sealing ring according to claim 11, wherein the protective part is a protective film fastened to the first bonding layer.

- [c13] 13. The sealing ring according to claim 12, wherein the protective film is glued to the first bonding layer.
- [c14] 14. The sealing ring according to claim 11, wherein the protective part has at least one removal tab.
- [c15] 15. The sealing ring according to claim 4, further comprising a second bonding layer, wherein the first and second bonding layers are arranged on opposed sides of the at least one fastening part.
- [c16] 16. The sealing ring according to claim 15, wherein the first and second bonding layers are identical.
- [c17] 17. The sealing ring according to claim 1, further comprising a sealing member attached to the at least one fastening part.
- [c18] 18. The sealing ring according to claim 17, wherein the sealing member is a ring-shaped disk.
- [c19] 19. The sealing ring according to claim 17, further comprising a second bonding layer, wherein the sealing member is fastened with the second bonding layer to the at least one fastening part.
- [c20] 20. The sealing ring according to claim 19, wherein the second bonding layer is an adhesive layer.

- [c21] 21. The sealing ring according to claim 17, wherein the sealing member consists of non-woven material.
- [c22] 22. The sealing ring according to claim 17, wherein the sealing member has at least one of a greater radial width and a greater thickness than the second bonding layer.
- [c23] 23. The sealing ring according to claim 17, wherein the at least one sealing part has an annular opening having an inner diameter that is slightly greater than a diameter of the first machine part or the second machine part received therein.
- [c24] 24. The sealing ring according to claim 17, wherein the at least one sealing part has an annular opening having an inner diameter that is smaller than a diameter of the first machine part or the second machine part received therein.
- [c25] 25. The sealing ring according to claim 1, wherein the annular disk has at least one circumferentially extending bead corresponding to a projection provided on a connecting wall of the first machine part.
- [c26] 26. The sealing ring according to claim 4, wherein the annular disk is configured to be fastened by a mounting tool on the first machine part.

- [c27] 27. The sealing ring according to claim 26, wherein the bonding layer is meltable and wherein the mounting tool is heatable for melting the first bonding layer.
- [c28] 28. The sealing ring according to claim 26, wherein the annular disk is secured by suction on the mounting tool.
- [c29] 29. The sealing ring according to claim 26, wherein the annular disk is arranged in an end face recess of the mounting tool.
- [c30] 30. The sealing ring according to claim 26, further comprising an elastic support arranged between the at least one fastening part and the mounting tool for mounting the sealing ring.
- [c31] 31. The sealing ring according to claim 1, wherein the at least one sealing part comprises at least one returning device for the medium to be sealed.
- [c32] 32. The sealing ring according to claim 1, wherein the annular disk consists of a material selected from the group consisting of polyfluorocarbon, elastomer-modified polyfluorocarbon, and elastomer.
- [c33] 33. The sealing ring according to claim 32, wherein the polyfluorocarbon is polytetrafluoroethylene and the elastomer-modified polyfluorocarbon is elastomer-modified

polytetrafluoroethylene.

- [c34] 34. The sealing ring according to claim 32, wherein at least a fastening area of the annular disk is plasma-treated.
- [c35] 35. The sealing ring according to claim 34, wherein at least the fastening area of the annular disk is plasma-etched.
- [c36] 36. The sealing ring according to claim 1, wherein the at least one sealing part has a first sealing lip and a second sealing lip pointing in opposite directions.
- [c37] 37. The sealing ring according to claim 36, wherein the first and second sealing lips rest against one another.
- [c38] 38. The sealing ring according to claim 36, wherein the first sealing lip faces an inside of the sealing ring and the second sealing lip faces an outside side of the sealing ring.
- [c39] 39. The sealing ring according to claim 36, wherein the first and second sealing lips are connected to one another by a joint.
- [c40] 40. The sealing ring according to claim 36, wherein the second sealing lip has at least one of a primary sealing edge and a secondary sealing edge.

- [c41] 41. The sealing ring according to claim 36, wherein the first and second sealing lips have at least one of an identical length and an identical thickness.
- [c42] 42. The sealing ring according to claim 36, wherein the second sealing lip is bent or rolled into a sealing position.
- [c43] 43. The sealing ring according to claim 36, wherein the first and second sealing lips delimit an annular chamber that is closed relative to an air side of the sealing ring and open relative to a medium side of the sealing ring.